

ABSTRAK

Gudang merupakan inventory yang penting untuk berjalannya operasional perusahaan. Perancangan tata letak gudang berdasarkan pada jarak *material handling* yaitu untuk menghindari terjadinya kerugian pada perusahaan dan meminimalisir ongkos *material handling*. Metode yang digunakan yaitu metode *class based storage*, metode tersebut digunakan untuk mempermudah pengambilan inventory, meningkatkan efektivitas operasional gudang, memudahkan manajemen inventory, mengurangi jarak *material handling* dan mengurangi ongkos *material handling*. *Class based storage* merupakan model yang mengelompokkan material dalam gudang menjadi tiga kelas A, B, dan C berdasarkan dengan pertimbangan pada aktivitas perpindahan. *Layout 2* terpilih sebagai alternatif usulan karena mempunyai ongkos material handling, waktu dan jarak perpindahan lebih kecil dari layout usulan 1, dengan ongkos *material handling* Rp. 283,54 total jarak perpindahan operator sejauh 130,63 m, jarak perpindahan *forklift* sejauh 36,43 m, waktu perpindahan operator selama 12.189,08 dan sekon, waktu perpindahan *forklift* selama 479,05 sekon. Ongkos *material*. Controlling *layout* menggunakan pendekatan 5S (Seiri, Seiton, Seiso, Seiketsu, dan Shitsuke) untuk menjaga tata letak fasilitas yang telah dibuat agar tetap rapi, bersih, dan aman.

Kata kunci : *class based storage*, ongkos *material handling*, perancangan tata letak, jarak dan waktu perpindahan.

ABSTRACT

Warehouse is inventory that is important for the company's operations. Warehouse layout design is based on material handling distance, namely to avoid losses to the company and minimize material handling costs. The method used is the class based storage method, this method is used to facilitate inventory retrieval, increase warehouse operational effectiveness, facilitate inventory management, reduce material handling distances and reduce material handling costs. Class based storage is a model that groups materials in a warehouse into three classes A, B and C based on consideration of movement activities. Layout 2 was chosen as the proposed alternative because it has material handling costs, moving time and distance that are smaller than proposed layout 1, with material handling costs of Rp. 283.54 total operator movement distance was 130.63 m, forklift movement distance was 36.43 m, operator movement time was 12,189.08 seconds, forklift movement time was 479.05 seconds. Material costs. Controlling layout uses the 5S approach (Seiri, Seiton, Seiso, Seiketsu, and Shitsuke) to maintain the layout of the facilities that have been created so that they remain neat, clean and safe..

Key words: class based storage, material handling costs, layout design, distance and moving time.